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2420-63

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[REDACTED] 583

MEMORANDUM FOR: Deputy Director (Research)

SUBJECT : Status of U-2 DC Generator

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1. The Project has two 500 AMP [REDACTED] generators at present. One each is installed in Article 358 and 359, located at [REDACTED]. Two spare 500 AMP generators at [REDACTED] have been turned over to the SAC U-2 Detachment at Del Rio on 15 March, in accordance with your request. 25X1A6a

2. The 500 AMP generator was programmed for Project aircraft as a result of ECM modifications. The generator was manufactured originally for Air Force use in other than the U-2, but with modifications to the center shaft and cap, was easily converted to our increased power requirements in the U-2.

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3. Project aircraft, Article 342 and 355 at [REDACTED], have 400 AMP generators modified with new bearings and seals, which are presently under intensive study at Lockheed as a result of recent generator failures both in SAC and Project U-2.

4. It is reported from Air Force that the Del Rio group have located twenty-three 400 AMP generators (Stock No. G-128-20) which they plan to use in their operations. This generator is the same unit that has been in the U-2 for several years. The only difference is that the 2D series generator is unmodified as to hi-temp grease and new seals. The bearings in these generators could well be from the current lot under suspect today, as there is no reported means of distinguishing one bearing from another without making extensive bench measurements.

5. At the present time, Lockheed is working around the clock to come up with an acceptable 400 AMP generator of the current 2D series. This is requiring detailed tests and analysis of bearings, grease seals, grease and carbon brushes. It is believed that a solution to our present problems with this generator will be found with time, judging from the array of talents brought to bear on the problem. In addition to Lockheed's effort, [REDACTED] and carbon brush suppliers are contributing extensively to reaching a desired conclusion to the problem. This appears to be the most expeditious route to take since testing and quantity production of a new generator is possibly more than 90 days away.

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Control System

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6. [REDACTED] is conducting detailed environmental temperature and humidity tests with appropriate loads on a 400 AMP [REDACTED] generator currently installed in the F-105. Early results from these tests look very encouraging. Lockheed has today installed one of these generators in Article 352 for tests. Two or possibly three weeks will be required to complete flight testing in our aircraft. Should the [REDACTED] generator prove successful in the U-2, production in quantity is estimated to be 90 days.

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*for* JACK C. LEDFORD  
Colonel USAF  
Assistant Director  
(Special Activities)

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MD/OSA-DD/R [REDACTED] ad:15 March 63

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